

REMARKS

Claims 1-2, 4, and 6 are pending herein.

I. The § 112 rejections, as noted on page 2 of the Office Action.

Applicants respectfully note that claim 1 has been amended to clarify the structure of the tooth missing gear. No new matter is added by the amendments. Support for the amendments is found in present Figure 2(A) and paragraph [0025] of the present specification.

Regarding “the teeth part,” Applicants respectfully note that this corresponds to a portion of the tooth-missing gear part that is provided with teeth. For example, as seen in present Figure 2(A), tooth missing gear 46 includes a tooth-missing gear part 462. As further seen in present Figure 2(A), tooth-missing gear part 462 includes a teeth part 463. Thus, it is respectfully asserted As explained in paragraph [0035] of the present specification, teeth part 463 of the tooth-missing gear part 462 engages with first rack part 47 of rack member 8.

Thus, it is respectfully asserted that claim 1 clearly defines the claimed structure. Therefore, it is respectfully asserted that the § 112 rejections of claim 1 have been overcome.

Regarding claim 5, Applicants respectfully note that claim 5 has been cancelled.

II. The anticipation rejections of claims 1-4 based on Tung (US 6,789,439), as noted on page 3 of the Office Action.

The USPTO respectfully rejects claims 1-4 under 35 U.S.C. § 102(b) as being anticipated by Tung. Claim 1 is an independent claim. Claim 3 is respectfully cancelled.

A. Tung does not disclose that an other end portion of the first rack part and an other end portion of the second rack part are separated from each other so as to form a separated space between the other end portions, as claimed in claim 1.

Claim 1 claims in relevant part:

“one end portions of the first rack part and one end portion of the second rack part are connected with each other through a connecting part; and

an other end portion of the first rack part and an other end portion of the second rack part are separated from each other so as to form a separated space

between the other end portions of the first rack part and the second rack part.”
(emphasis added)

No new matter is added by the amendments. Support for the amendments is found in present Figures 2(A) and 7. Regarding these limitations, it is respectfully not seen where Tung discloses the claimed structure quoted above.

For example, the USPTO respectfully argues on page 3 of the Office Action that Tung discloses a rack member 13. However, regarding the amendments, Applicants respectfully assert that **rack member 13 of Tung does not have an other end portion of a first rack part and an other end portion of a second rack part that are separated from each other so as to form a separated space between the other end portions**, as claimed in claim 1. Instead, as seen in Figure 2 of Tung, purported rack member 13 is formed in a closed-loop shape. Thus, Tung does not disclose that an other end portion of the first rack part and an other end portion of the second rack part are separated from each other so as to form a separated space between the other end portions, as claimed in claim 1.

In contrast, present Figure 2(A) illustrates at least one possible embodiment of the claimed structure quoted above. For example, present Figure 2(A) shows a rack member 8 that includes a first rack part 47 and a second rack part 48. Present Figure 2(A) further shows that a connecting part 49 connects an end of first rack part 47 to an end of second rack part 48. As further seen in present Figure 2(A), **other end portions of the first rack part 47 and the second rack part 48 (i.e., towards the top of present Figure 2(A), are separated from each other so as to form a separated space, and gear 45 is disposed in this separated space.** In other words, an other end portion of the first rack part 47 and an other end portion of the second rack part 48 are separated from each other so as to form a separated space between the other end portions, as claimed in claim 1.

The distinction noted above is important and non-trivial because it results in significant advantages over conventional devices. For example, in the structure of claim 1, the separated space between the other ends of the rack parts allows the gear for driving the tooth-missing gear to be provided without interfering with the motion of the first rack part or the second rack part. Accordingly, **the design of the device can be simplified and made more compact or thinner.**

Thus, it is respectfully asserted that Tung does not disclose all of the limitations of independent claim 1. Therefore, it is respectfully asserted that Tung does not anticipate independent claim 1.

B. The dependent claims.

As noted above, it is respectfully asserted that independent claim 1 is allowable, and therefore it is further respectfully asserted that dependent claims 2-4 are also allowable.

III. The anticipation rejections of claims 1 and 5 based on Harvie (US 1,898,956), as noted on page 4 of the Office Action.

The USPTO respectfully rejects claims 1 and 5 under 35 U.S.C. § 102(b) as being anticipated by Harvie. Claim 5 is respectfully cancelled.

Applicants respectfully note that claim 1 has been amended to incorporate the limitations of dependent claim 3. For example, claim 1 now reads in relevant part:

“the first rack part and the second rack part are extended in parallel to each other so as to interpose the tooth-missing gear between the first rack part and the second rack part.” (emphasis added)

Applicants respectfully note that dependent claim 3 was not rejected based on Harvie. Accordingly, it is respectfully asserted that incorporating the limitations of dependent claim 3 into independent claim 1 overcomes the anticipation rejections based on Harvie. Therefore, it is respectfully asserted that independent claim 1 is allowable.

IV. The obviousness rejection of claim 6 based on Tung in view of JP 2000-320955, as noted on page 6 of the Office Action.

As noted above, it is respectfully asserted that independent claim 1 is allowable, and it is further respectfully asserted that JP 2000-320955 does not overcome these deficiencies in Tung as noted above in section II regarding independent claim 1. Therefore, it is respectfully asserted that dependent claim 6 is also allowable.

V. The specification amendments.

Applicants respectfully note that the specification has been amended. No new matter is added by the amendments. Support for the amendments is found in Figures 2(A) and 7.

VI. Conclusion.

Reconsideration and allowance of all of the claims is respectfully requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Please contact the undersigned for any reason. Applicant seeks to cooperate with the Examiner including via telephone if convenient for the Examiner.

Respectfully submitted,

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